

REMARKS

Claims 4, 6, 12-13 and 19 are pending in the application. With this Supplemental Amendment, claims 6, 13 and 19 have been cancelled as the subject matter thereof has been added to independent claim 4. New claim 20 defines a microfluid chamber that has an electrode pair that applies the electrical field generated perpendicular to the phase boundaries, see page 5, last full paragraph continuing onto page 6. Page 6, fourth full paragraph defines the intake channels being in flow connection with the microfluid chambers and the fluid phases supplied to the form of sheets. Support for new independent claim 21 is found in the originally filed claims as well as the passages mentioned with respect to dependent claim 20 and additionally page 10, last paragraph continuing onto page 11. Accordingly, no new matter has been added.

During the interview conducted with the Examiners, it was questioned why the at least two different phases that enter as many sheets would not separate ultimately into two different phases. Paragraph [0002] on page 4 defines that in a special variant, one makes use of the special properties of microfluid systems: in the millimeter to submillimeter range and smaller, the surface tensions act much more strongly on fluid sheets than do the volume forces or the force of gravity. In this way, one can collect the most varied liquids of differing density in a system of different fluid sheets, without them becoming deposited according to their density. Accordingly, the explanation answers why the different lamellae would not separate ultimately into two different phases or according to their densities. It is further pointed out that the thickness of the partition walls between channels 7 is very small and the dimensions shown in Figs. 7A and B are not true to scale. Also the velocity of the flow of a liquid is very low and therefore the Reynolds number is very low as well, which results in a laminar flow.

During the interview, the Examiner stated that some of the components listed in paragraph [0044] of Manach that are part of the stationary phase of the flat separation column 3, such as cellulose and synthetic resin, can be considered "gel-like" and therefore are relevant to claim 4. The Applicant has amended claim 4 to define that the microfluid system consists of a plurality of liquid lamellae thereby excluding gels and the teachings of the Manach reference.

Moreover, new claims 20 and 21 define that the microfluid system flows through a microfluid chamber and therefore further distinguishes the claimed invention from the Manach reference which includes a stationary phase in the flat separation column 3.

Should the Examiner have any questions or concerns regarding this response, a telephone call to the undersigned is greatly appreciated.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA



Daniel J. Hudak, Jr.
Registration No. 47,669

DJHjr/ljg/dp
2020 Front St., Suite 307
Cuyahoga Falls, OH 44221
330-535-2220
Attorney Docket No.: FMW-CP-PCT-US (I 1020 US)